- 3.3 CLEANING
- A. General: Use only the gentlest, appropriate method necessary to clean surfaces in preparation for painting. Clean all surfaces, corners, contours, and
- B. Detergent Cleaning: Wash surfaces by hand using clean rags, sponges, and bristle brushes. Scrub surface with detergent solution and bristle brush until soil is thoroughly dislodged and can be removed by rinsing. Use small brushes to remove soil from joints and crevices. Dip brush in solution often to ensure that adequate fresh detergent is used and that surface remains wet. Rinse with water applied by clean rags or sponges.
- C. Solvent Cleaning: Use solvent cleaning as a last resort to remove oil, grease, smoke, tar, and asphalt from painted or unpainted surfaces before other preparation work. Wipe surfaces with solvent using clean rags and sponges. If necessary, spot-solvent cleaning may be employed just prior to commencement of paint application, provided enough time is allowed for complete evaporation. Use clean solvent and clean rags for the final wash to ensure that all foreign materials have been removed. Do not use solvents, including primer thinner and turpentine, that leave residue.
- D. Mildew: Clean off existing mildew, algae, moss, plant material, loose paint, grease, dirt, and other debris by scrubbing with bristle brush or sponge and detergent solution. Scrub mildewed areas with mildewcide. Rinse with water applied by clean rags or sponges.
- 3.4 PAINT REMOVAL
- A. Paint Removal with Hand Tools: Remove paint manually using hand-held scrapers, wire brushes, sandpaper, and steel wool. Do not use other methods except as approved by Architect.
- 3.5 SUBSTRATE REPAIR
- A. General: Repair substrate surface defects that are inconsistent with the surface appearance of adjacent materials and finishes.
- B. Wood Substrate:
- 1. Repair wood defects including dents and gouges more than 1/4 inch (6 mm) in size and all holes and cracks by filling with wood patching compound and sanding smooth. Reset or remove protruding fasteners.
- 2. Where existing paint is allowed to remain, sand irregular buildup of paint, runs, and sags to achieve a uniformly smooth surface.
- 3.6 PAINT APPLICATION, GENERAL
- A. Comply with manufacturers' written instructions for application methods and with other Division 09 painting [and transparent finishing] Sections.
- B. Prepare surfaces to be painted according to the Surface-Preparation Schedule and with manufacturer's written instructions for each substrate condition.
- C. Apply a transition coat over incompatible existing coatings.
- D. Blending Monochromatic Painted Surfaces: When painting new substrates patched into existing surfaces or touching up missing or damaged finishes, apply coating system specified for the specific substrate. Apply final finish coat over entire surface from edge to edge and corner to corner.
- 3.7 CLEANUP AND PROTECTION
- A. At end of each workday, remove rubbish, empty cans, rags, and other discarded materials from Project site.
- B. After completing paint application, clean spattered surfaces. Do not scratch or damage adjacent finished surfaces.
- C. Protect work of other trades against damage from paint application. Correct damage to work of other trades by cleaning, repairing, replacing, and refinishing, as approved by Architect, and leave in an undamaged condition.
- D. At completion of construction activities of other trades, touch up and restore damaged or defaced painted surfaces.
- 3.8 SURFACE-PREPARATION SCHEDULE
- A. General: Before painting, prepare surfaces for painting according to applicable requirements specified in this schedule.
- 1. Examine surfaces to evaluate each surface condition according to the paragraphs below.
- 2. Where existing degree of soiling prevents examination, preclean surface and allow it to dry before making an evaluation.
- 3. Repair substrate defects according to "Substrate Repair" Article 3.5.
- B. Surface Preparation for DSD 1 Degree of Surface Degradation:
- 1. Surface Condition: Paint film cracked or broken but adhered.
- 2. Paint Removal: Scrape by hand-tool cleaning methods to remove loose paint until only tightly adhered paint remains.
- 3. Preparation for Painting: Wash surface by detergent cleaning; use other cleaning methods for small areas of bare substrate if required. Roughen, degloss, and sand the cleaned surfaces to ensure paint adhesion and a smooth finish according to paint manufacturer's written instructions.
- C. Surface Preparation for DSD 2 Degree of Surface Degradation:
- 1. Surface Condition: Paint film loose, flaking, or peeling.
- 2. Paint Removal: Remove loose, flaking, or peeling paint film by hand-tool or chemical paint-removal methods.
- 3. Preparation for Painting: Wash surface by detergent cleaning; use solvent cleaning where needed. Use other cleaning methods for small areas of bare substrate if required. Sand surfaces to smooth remaining paint film edges. Prepare bare cleaned surface to be painted according to paint manufacturer's written instructions for substrate construction materials.
- D. Surface Preparation for DSD 3 Degree of Surface Degradation:
- 1. Surface Condition: Paint film severely deteriorated
- 2. Paint Removal: Completely remove paint film by hand-tool or chemical paint-removal methods.
- 3. Preparation for Painting: Prepare bare cleaned surface according to paint manufacturer's written instructions for substrate construction materials.
- 3.9 EXTERIOR HISTORIC PAINTING SCHEDULE
- A. Wood:
- 1. Latex System: MPI REX 6.2A system (over a transition coat if existing coating is not compatible with new paint system). Depending on results revealed by testing laboratory for original historic color and gloss, provide four step process as follows:
- a. Prime Coat: [Not required for MPI DSD 0] [Touch up with intermediate coat for MPI DSD 1] [Spot prime with MPI 5, Primer, Alkyd for Exterior Wood, for MPI DSD 21 [Full prime coat with MPI 5. Primer, Alkyd for Exterior Wood, for MPI DSD 3.
- b. Intermediate Coat [MPI 10, Latex, Exterior, Flat (MPI Gloss Level 1)] [MPI 15, Latex, Exterior, Low Sheen (MPI Gloss Level 3-4)] [MPI 11, Latex, Exterior, Semi-Gloss (MPI Gloss Level 5)] [MPI 119, Latex, Exterior, Gloss (MPI Gloss Level 6)].
- c. Topcoat: [Match intermediate coat].
- d. Color: Match Munsell color chips provided by Owner.
- 1. Varnish System (Clear)- Depending on results revealed by testing laboratory for original historic color and gloss, provide three step process as follows:
- a. Prime Coat: [Not required for MPI DSD 0] [Touch up with intermediate coat for MPI DSD 1] [Spot prime with intermediate coat for MPI DSD 2] [Full prime coat with intermediate coat for MPI DSD 3].
- b. Intermediate Coats: Two coats of [MPI 30, Varnish with UV Inhibitor, Exterior, Semi-Gloss (MPI Gloss Level 5)] [MPI 29, Varnish with UV Inhibitor,
- Exterior, Gloss (MPI Gloss Level 6)]. c. Topcoat: [Match intermediate coat].
- 3.10 INTERIOR HISTORIC PAINTING SCHEDULE
- A. Wood Floors Depending on results revealed by testing laboratory for original historic color and gloss, provide one of the following three processes as follows:
- 1. Alkyd Floor Enamel System: MPI RIN 6.5A system (over a transition coat if required).
- a. Prime Coat: [Not required for MPI DSD 0] [Touch up with intermediate coat for MPI DSD 1] [Spot prime with intermediate coat, for MPI DSD 2] [Full prime coat with intermediate coat, for MPI DSD 3].
- b. Intermediate Coat: [MPI 27, Floor Enamel, Alkyd, Gloss (MPI Gloss Level 6)].
- c. Topcoat: [Match intermediate coat] <Insert requirement or coating designation>.
- d. Color: Match Munsell Color chip.
- 2. Polyurethane Varnish System (Clear): MPI RIN 6.5C.
- a. Prime Coat: [Not required for MPI DSD 0] [Touch up with intermediate coat for MPI DSD 1] [Spot prime with intermediate coat for MPI DSD 2] [Full prime coat with intermediate coat for MPI DSD 3].
- b. Intermediate Coat: [MPI 56, Varnish, Interior, Polyurethane, Oil Modified, Gloss (MPI Gloss Level 6)].
- c. Topcoat: [Match intermediate coat].
- 3. Moisture-Cured Polyurethane System (over Stain): MPI RIN 6.5L.
- a. Prime Coat: [Not required for MPI DSD 0] [Touch up with intermediate coat for MPI DSD 1] [Spot prime with MPI 90, Stain, Semi-Transparent, for Interior Wood, for MPI DSD 2] [Full prime coat with MPI 90, Stain, Semi-Transparent, for Interior Wood, for MPI DSD 3]
- b. Intermediate Coat: [MPI 31, Varnish, Polyurethane, Moisture Cured, Gloss (MPI Gloss Level 6)].
- c. Topcoat: [Match intermediate coat].
- d. Color: Match Munsell color chip.

END OF SECTION 090190

PAINTING (PROFESSIONAL LINE PRODUCTS)

SECTION 09912 - PAINTING

- PART 1 GENERAL
- 1.1 SUMMARY A. This Section includes surface preparation and field painting of exposed items and surfaces for new material. Refer to Section xxxx for historic material.
- 1.2 SUBMITTALS
- A. Product Data: For each product indicated.
- B. Samples: For each type of finish-coat material indicated.
- 1.3 QUALITY ASSURANCE
- A. Benchmark Samples (Mockups): Provide a full-coat benchmark finish sample for each type of coating and substrate required. Comply with procedures specified in PDCA P5.
- 1. Wall Surfaces: Provide samples on at least 100 sq. ft. (9 sq. m).
- Small Areas and Items: Architect will designate items or areas required.
- Final approval of colors will be from benchmark samples.
- 1.4 PROJECT CONDITIONS
- A. Store materials not in use in tightly covered containers in a well-ventilated area at a minimum ambient temperature of 45 deg F (7 deg C). Maintain storage containers in a clean condition, free of foreign materials and residue.
- B. Apply waterborne paints only when temperatures of surfaces to be painted and surrounding air are between 50 and 90 deg F (10 and 32 deg C).
- C. Apply solvent-thinned paints only when temperatures of surfaces to be painted and surrounding air are between 45 and 95 deg F (7 and 35 deg C).
- D. Do not apply paint in snow, rain, fog, or mist; or when relative humidity exceeds 85 percent; or at temperatures less than 5 deg F (3 deg C) above the dew point; or to damp or wet surfaces.
- 1.5 EXTRA MATERIALS
- A. Furnish extra paint materials from the same production run as the materials applied and in the quantities described below. Package with protective covering for storage and identify with labels describing contents. Deliver extra materials to Owner.
- 1. Quantity: 5 percent, but not less than 1 gal. (3.8 L) or 1 case, as appropriate, of each material and color applied.
- PART 2 PRODUCTS
- 2.1 PAINT MATERIALS. GENERAL
- A. Paint all new material not of historic value to match adjacent historic material. Use same paint systems as for historic and match color and gloss of historic material specified under Section 090190.

PART 3 - EXECUTION

3.1 APPLICATION

specified.

E. Material Preparation:

- A. Examine substrates, areas, and conditions, with Applicator present, for compliance with requirements for paint application.
- B. Coordination of Work: Review other Sections in which primers are provided to ensure compatibility of the total system for various substrates. On request, furnish information on characteristics of finish materials to ensure use of compatible primers.
- C. Remove hardware and hardware accessories, plates, machined surfaces, lighting fixtures, and similar items already installed that are not to be painted. If
- removal is impractical or impossible because of size or weight of the item, provide surface-applied protection before surface preparation and painting. 1. After completing painting operations in each space or area, reinstall items removed using workers skilled in the trades involved.
- D. Surface Preparation: Clean and prepare surfaces to be painted according to manufacturer's written instructions for each particular substrate condition and as
- 1. Provide barrier coats over incompatible primers or remove and reprime.
- 2. Wood: Clean surfaces of dirt, oil, and other foreign substances with scrapers, mineral spirits, and sandpaper, as required. Sand surfaces exposed to view smooth and dust off.
- a. Scrape and clean small, dry, seasoned knots, and apply a thin coat of white shellac or other recommended knot sealer before applying primer. After priming, fill holes and imperfections in finish surfaces with putty or plastic wood filler. Sand smooth when dried.
- b. Prime, stain, or seal wood to be painted immediately on delivery. Prime edges, ends, faces, undersides, and back sides of wood.
- c. If transparent finish is required, backprime with spar varnish.
- d. Seal tops, bottoms, and cutouts of unprimed wood doors with a heavy coat of varnish or sealer immediately on delivery.
- 1. Maintain containers used in mixing and applying paint in a clean condition, free of foreign materials and residue.
- necessary, remove surface film and strain material before using. F. Sand lightly between each succeeding enamel or varnish coat.
- G. Scheduling Painting: Apply first coat to surfaces that have been cleaned, pretreated, or otherwise prepared for painting as soon as practicable after preparation

2. Stir material before application to produce a mixture of uniform density. Stir as required during application. Do not stir surface film into material. If

- and before subsequent surface deterioration.
- 1. Omit primer over metal surfaces that have been shop primed and touchup painted. 2. If undercoats, stains, or other conditions show through final coat of paint, apply additional coats until paint film is of uniform finish, color, and appearance.

H. Application Procedures: Apply paints and coatings by brush, roller, spray, or other applicators according to manufacturer's written instructions.

- I. Minimum Coating Thickness: Apply paint materials no thinner than manufacturer's recommended spreading rate. Provide total dry film thickness of the entire system as recommended by manufacturer.
- J. Prime Coats: Before applying finish coats, apply a prime coat, as recommended by manufacturer, to material that is required to be painted or finished and that has not been prime coated by others. Recoat primed and sealed surfaces where evidence of suction spots or unsealed areas in first coat appears, to ensure a finish coat with no burn-through or other defects due to insufficient sealing.
- K. Pigmented (Opaque) Finishes: Completely cover surfaces as necessary to provide a smooth, opaque surface of uniform finish, color, appearance, and coverage. Cloudiness, spotting, holidays, laps, brush marks, runs, sags, ropiness, or other surface imperfections will not be acceptable.
- L. Transparent (Clear) Finishes: Use multiple coats to produce a glass-smooth surface film of even luster. Provide a finish free of laps, runs, cloudiness, color irregularity, brush marks, orange peel, nail holes, or other surface imperfections.
- 3.2 CLEANING AND PROTECTING
- A. At the end of each workday, remove empty cans, rags, rubbish, and other discarded paint materials from Project site.
- B. Protect work of other trades, whether being painted or not, against damage from painting. Correct damage by cleaning, repairing or replacing, and repainting, as approved by Architect.
- C. Provide "Wet Paint" signs to protect newly painted finishes. After completing painting operations, remove temporary protective wrappings provided by others to
- 1. After work of other trades is complete, touch up and restore damaged or defaced painted surfaces. Comply with procedures specified in PDCA P1.

END OF SECTION 09912

- PART 1- GENERAL
- 1.01 SECTION INCLUDES
- A . Asphalt roofing shingles.

SECTION 07310 - ASPHALT SHINGLES

- B. Leak barrier and deck protection.
- C. Metal flashing associated with shingle roofing.
- 1.02 REFERENCES
- A. ASTM A 653/A 653M Standard Specification for Steel Sheet, Zinc Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process.
- B. ASTM D 2218 Impact Resistance of Prepared Roof Covering Materials.
- C. ASTM D 3018 Standard Specification for Class A Asphalt Shingles Surfaced with Mineral Granules. D. ASTM D 3161 - Standard Test Method for Wind-Resistance of Asphalt Shingles (Fan-Induced Method).
- E. ASTM D 3462 Standard Specification for Asphalt Shingles Made From Glass Felt and Surfaced with Mineral Granules. F. ASTM D 4586 - Standard Specification for Asphalt Roof Cement, Asbestos-Free.
- G. ASTM D 7158 Standard Test Method for Wind-Resistance of Sealed Asphalt Shingles (Uplift Force/Uplift Resistance Method). H. UL 790 - Tests for Fire Resistance of Roof Covering Materials.
- I. UL 997 Wind Resistance of Prepared Roof Covering Materials. J. Asphalt Roofing Manufacturers Association (ARMA)
- K. National Roofing Contractors Association (NRCA)

- 1.03 SUBMITTALS
- A. Submit copies of Miami-Dade County Notice of Acceptance (NOA No. 08-1110.10) and copies of manufacturer's product data sheets, detail drawings and samples for each type of roofing product.
- 1.04 QUALITY ASSURANCE
- A. Manufacturer Qualifications: Provide all primary roofing products, including shingles, underlayment, and leak barrier, by a single manufacturer. B. Installer Qualifications: Installer must be approved for installation of all roofing products to be installed under this section.
- 1.05 REGULATORY REQUIREMENTS
- A. Provide a roofing system achieving an Underwriters Laboratories (UL) Class A fire classification.
- B. Install all roofing products in accordance with all federal, state and local building codes and in accordance with Miami-Dade County Notice of Acceptance NOA
- C. All work shall be performed in a manner consistent with current OSHA guidelines.
- 1.06 DELIVERY, STORAGE, AND HANDLING
- A. Store all products in manufacturer's unopened, labeled packaging until they are ready for installation.
- B. Store products in a covered, ventilated area, at temperature not more than 110 degrees F (43 degrees C); do not in direct sunlight.
- C. Store bundles on a flat surface. Maximum stacking height shall not exceed manufacturer's recommendations. Store all rolls on end. D. Store and dispose of solvent-based materials in accordance with all federal, state and local regulations.
- 1.07 WEATHER CONDITIONS
- A. Proceed with work only when existing and forecasted weather conditions will permit work to be performed in accordance with manufacturer's recommendations
- 1.08 WARRANTY
- A. Provide to the owner a Smart Choice® Shingle Ltd. Warranty or equivalent manufacturer's twenty year warranty.
- PART 2- PRODUCTS
- 2.01 MANUFACTURERS
- A. Acceptable Manufacturer: GAF-Elk, 1361 Alps Rd. Wayne NJ 07470. Tel: 1-973-628-3000. Requests for equal substitutions will be considered provided the complete roofing system meets equivalent criteria established by this specification.
- 2.02 SHINGLES
- A. Midweight, granule surfaced self sealing asphalt shingle with a strong fiberglass reinforced Micro Weave® core and StainGuard® protection, which prevents pronounced discoloration from blue-green algae through formulation/unique blends of granules. Traditional 3-tab styling with a 5" or 5 5/8" exposure. UL 790 Class A rated with test spec TAS 110; ASTM D 7158, Class H; ASTM D 3161, Type 1; Miami-Dade County NOA Approval 08-1110.10, Florida Building Code Approved. Royal Sovereign® Shingles, by GAF-Elk.
- 1. Color: As selected from manufacturers' full range.
- 2.03 HIP AND RIDGE SHINGLES
- A. Ridge cap shingle field fabricated from the same color and type of field shingle. Each bundle covers approx. 33 lineal feet.
- A. Self sealing starter shingle designed for premium roof shingles. Each bundle covers approx. 50/100 lineal feet (15240/30480 mm). WeatherBlocker™ Eave/Rake Starter Strip.
- 2.05 LEAK BARRIER
- A. Self-adhering, self sealing, bituminous leak barrier surfaced with fine, skid-resistant granules. Each Roll contains approx. 150 sq ft, 65 lbs (29.9 kg), 36" X 50'
- or 200 sq ft, 85 lbs (38.6 kg), 36" X 66.7'. 58 mils thick. WeatherWatch®. B. Self-adhering, self sealing, bituminous leak barrier surfaced with a smooth polyethylene film. Each Roll contains approx. 200 sq ft, 85 lbs (38.6 kg), 36" X 66.7'. 60 mils thick. **StormGuard**®.
- 2.06 SHINGLE UNDERLAYMENT
- A. Water repellent, breather type cellulose/glass fiber composite roofing underlayment. Shingle-Mate®
- A. General purpose asphalt roofing cement meeting the requirements of ASTM D 4586, Type I or II. Matrix Standard Plastic Roof Cement #203, by BMCA.
- B. General purpose asphalt roofing cement meeting the requirements of ASTM D 4586, Type I or II. Matrix Standard Wet/Dry Roof Cement #204, by BMCA. C. Asphalt Plastic Roofing Cement meeting the requirements of ASTM D 4586, Type I or II.

2.07 ROOFING CEMENT

2.08 ROOFING SEALANT A. Commercial grade roofing sealant that provides a 100% watertight seal that keeps water out at the most vulnerable areas of your roof (roof protrusions, step

flashings, vents, gutters, etc) and comes with a 20 yr ltd warranty against leaks caused by manufacturing defects. Meets the performance criteria of ASTM

- D412, ASTM D2196, ASTM D1475 and ASTM D1644, FLEXSEAL TO Commercial Grade Roofing Sealant.
- 2.09 NAILS A. Standard round wire, zinc-coated steel or aluminum; 10 to 12 gauge, smooth, barbed or deformed shank, with heads 3/8 inch (9.5 mm) to 7/16 inch (11 mm) in

diameter. Length must be sufficient to penetrate into solid wood at least 3/4 inch (19 mm) or through plywood or oriented strand board by at least 1/8 inch.

B. If roof deck preparation is the responsibility of another installer, notify the architect or building owner of unsatisfactory preparation before proceeding.

- 2.10 METAL FLASHING
- A. .24 gauge hot-dip galvanized steel sheet, complying with ASTM A 653/A 653M, G90/Z275.
- PART 3- EXECUTION
- 3.01 EXAMINATION

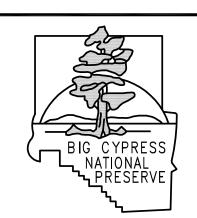
A. Do not begin installation until the roof deck has been properly prepared.

- 3.02 PREPARATION
- A. Clean deck surfaces thoroughly prior to installation of eaves protection membrane and underlayment.

B. At areas that receive eaves protection membrane, fill knotholes and cracks with latex filler.

SPECIFICATIONS CONTINUES ON SHEET A-1.3

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HISTORIC MONROE STATION **STABILIZATION**

BIG CYPRESS NATIONAL PRESERVE

BICY Contract No. C5120085452

SIXTO ARCHITECT INC.

ARCHITECTURE PLANNING INTERIORS CONSTRUCTION CONSULTING

AA 0003591 1501 Venera Ave. Suite 320-A Coral Gables, Florida

www.sixtoarch.com

Tel: (305) 569-2993 Fax: (305) 305-569-9701

299 ALHAMBRA CIRCLE CORAL GABLES FLORIDA 33134 PH. 305 461-3450 FAX 305 461-3650 inbox@douglaswood.biz www.douglaswood.biz

STRUCTURAL ENGINEERS

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PROJECT NO:

ISSUE DATE PHASE CD JUNE 12, 2009 **REVISIONS**

PROFESSIONAL OF RECORD: RAFAEL SIXTO, A.I.A.

ARCHITECTURE

AR 11543

SHEET TITLE:

DISCIPLINE:

REGISTRATION NO:

SPECIFICATIONS

DRAWING NO: